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ABSTRACT

Consistency in characteristics of maternal behavior with different siblings was investigated among 65 economically disadvantaged families, each having two children. Quality of infant/mother attachment was assessed when firstborn children were 12 and 18 months old, respectively, and when secondborn children were 12 months old. When children were 24 months old, they were observed with their mothers in a series of laboratory settings. A 6-minute toy-cleanup period was viewed as a setting in which to observe individual differences in mothers' abilities to set and maintain limits on their children's behavior. Mothers' behavior in supporting children's problem-solving activities was also assessed. In addition, mothers and firstborns were observed in a teaching/problem-solving task when children were 42 months old. Findings indicated notable consistency in qualities of maternal behavior. Such consistency was apparent in the ways mothers handled salient emotional issues with their older and younger children across situations and across developmental periods. (RH)

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Patterns of Maternal Behavior with First- and Secondborn Children: Evidence for Consistency in Family Relations[1]

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PATTERNS OF MATERNAL BEHAVIOR WITH

FIRST-AND SECOND-BORN CHILDREN

Mary J. Ward, Stephen M. Malone, and Edward J. DeAngelo

In the last few years, researchers have amassed substantial evidence for an organizational perspective on development. A central assumption of this perspective (cf., Sroufe, 1979) is that the qualitative characteristics of individuals and relationships are predictable across development. Specifically, individual differences in the organization of relationships and behavior are assumed to be consistent through developmental transformations, because previous experience shapes subsequent experience.

The assumption of consistency does not preclude the expectancy of changes in individuals and relationships. But the conditions under which change and stability occur are assumed to be predictable. For example, substantial change as well as stability in behavior and relationships has been observed, as expected, among highly stressed families. What is important, however, is that it is possible to specify conditions under which change and stability are observed in these families (Vaughn, Egeland, Sroufe, and Waters, 1979). Change in relationships does not indicate that a construct that assumes stability in individual differences is inaccurate. On the contrary, stability can be assumed and demonstarated, and the validity of the construct is enhanced by considering the relationship between behavior and environmental stress.

A family is an organized and developing system of individuals and relationships and as such provides a context within which to examine individual adaptation and the development of relationships. As patterns of individuals' behavior and relationships are consistent, so we can expect consistancy among relationships in the family. Individual development is affected by family relationships and these

relationships themselves are affected by one another (Kreppner, Paulsen, & Schuetze, 1981). Thus, the quality of a child's attachment relationship affects her subsequent social-emotional development just as the quality of particular relationships is affected by qualities of other family relationships. For example, researchers have demonstrated predictability between qualities of marital and parent-child relationships (Vincent, Cook, Brady, Harris, and Messerly, 1979) and between qualities of mother-child and sibling relationships (Bryant and Crockenberg, 1981).

Mother-child relations in the family

Studies of the interdependencies of family relationships are accumulating, but most of these studies focus on the associations between the marital and the parent-child relationships. The consistency of mother-child relations within the family has been studied in only a few investigations (Jacobs and Moss, 1976; Bryant and Crockenber, 1981). Existing data indicate that frequencies of maternal behaviors with first and second children differ in quantity, but are patterned similarly. Questions still remain about the degree to which stable rank-orders on frequencies of behavior are accurate indices of the quality of maternal behavior and mother-child relationships within families.

This study was concerned with investigating consistency in characteristics of maternal behavior with different children in the same family. The sample for this study consisted of 65 families drawn from a larger sample (originally 267) of primiparous women involved since the third trimester of pregnancy in a longitudinal study of mother-child interaction. The subjects for this investigation were families from the larger sample with a second child who had reached two years of age. This is primarily a sample of economically-disadvantaged families for whom residence, employment, income, and interpersonal relationships are highly unstable. Most

families have incomes at or below the poverty level, and many receive some form of public assistance.

Selection of mothers with at least 2 children yielded 22 families with first- and secondborn boys, 13 with first- and secondborn girls, 16 with a firstborn girl and a secondborn boy, and 14 with a firstborn boy and a secondborn girl. Average spacing between first and second births in this sample was 30.58 months (s = 8.55 months, range = 11-50 months), an interval consistent with birth spacings observed in other studies (e.g., Lewis and Kreitzberg, 1979).

Mothers were observed with each child at 2 periods of time:

1. Infancy. When the firstborn were 12 and 18 months-old and when the secondborn were 12 months-old, quality of infant-mother attachment was assessed with Ainsworth's procedure.

The procedure consists of 8 brief episodes involving separations and reunions that are designed to highlight the functioning of the attachment system and to indicate the quality of the infant-mother realtionship. Primarily from episodes involving reunion between infant and mother, individual differences are coded in the infant's ability to be comforted by the mother's presence and in its use of the mother as a "secure base" from which to explore (cf., Ainsworth, Blehar, Waters, and Wall, 1978). Each of the 3 assessments was coded by independent observers who were trained to reliabiltiy. Coders had no knowledge of other attachment data.

2. Two-year assessments. When children were 24 months-old, they were observed with their mothers in a series of laboratory settings. A 10-minute free-play session was followed by a 6-minute toy-cleanup period, and then by a series of tool-using problems. The clean-up procedure was viewed as a setting in which to observe individual differences in mothers' abilities to set and maintain limits on the child's behavior. Within this setting where the child is interrupted from pleasant activity, issues of control and trust can be observed. It is assumed that

the typical 2-year-old will show negativism that the competent mother can handle and channel. Individual differences in mothers' willingness and abilities to set and then enforce limits on the child were recorded on the basis of 1) a 6-point rating scale of the mother's behavior and 2) a 5-point rating of the process and outcome of the interaction. Two independent sets of raters scored the clean-up sessions for first- and secondborns. Inter-rater reliabilites for the scales were computed for randomly-selected subsamples using Pearson's r. Coefficients were above .80.

The problem-solving session involved the presentation of four tools, each designed to be more difficult than the last. Each task included a reward for completion so that the problem-solving was attractive to the child. The first two tools were solved readily by most 2 year-olds and were not scored. The third and fourth problems were the focus of scoring. These problems are based on concepts beyond the capacities of the 2 year-old and are solved rarely by toddlers without adult assistance. (See Matas, Arend, & Sroufe, 1978 for detailed description of procedures.)

The mother's role in this situation is to encourage the child's independent exploration and attempts to find solutions without allowing the child to become frustrated and distraught. The mother's effectiveness in this role was assessed on two dimensions: 1) Supportive Presence refers to the quality of emotional support that the mother provides for the child -- her ability to provide a secure base from which the child can explore and her emotional involvement with and responsiveness to the child. 2) Quality of Assistance refers to the adequacy of the instructions the mother gives. In the ideal case, a mother allows the child to try on his own, giving developmentally appropriate instructions when the child can use them. As with other data, independent sets of coders made ratings for first- and secondborn children. Inter-rater reliabilities for all scales were computed for randomly selected subsamples using Pearson's r. Coefficients ranged from .73 to .92.

3. Preschool assessment. In addition, mothers and firstborn were observed in a teaching/problem-solving task when children were 42 months-old. In this situation, mothers' behavior was rated on 7-point scales on the dimensions of 1)Supportive Presence, 2)Quality of Instruction, and 3) Provision of Structure and Limits. These scales were designed by Donald Rahe (Note 1) to be developmentally-approprate extensions of the scales used in the 24-month assessments.

Analyses revealed that qualities of maternal behavior and of mother-child relationships were relatively consistent across children. There was significant predictability in the quality of infant-mother attachmentfrom first- to secondborn: 54% of secondborn were assigned to the same attachment classifiaction as their older siblings (see Table 1). Cohen's coefficient of concordance (kappa) was used to test agreement. This coefficient is computed by correcting the observed level of agreement (both children in same classification) for the chance level of agreement from a given set of marginal frequencies. The A, B, and C classifications were significantly stable from the first child to the second ($K = .24$, $p < .01$), suggesting that despite differences in children, qualities of other-child relationships were consistent in infancy. In fact, qualities of maladaptive (anxious) relationships were especially consistent -- in only 2 (3%) families was 1 child classified as anxious/avoidant when the other was classified as anxious/resistant. Lack of predictability in infant-mother attachment from one child to the other may be associated with mothers' life events, family histories, and attitudes toward their children. Further analyses will have to define the correlates of the observed change.

Analyses also revealed significant predictability in qualities of maternal limit-setting, emotional support, and instrumental assistance in the 2-year period. In the cleanup session, the rating of the outcome of maternal limit-setting showed significant stability within families ($r(54) = .32$, $p < .02$; variable was submitted to natural log transformation), while the rating of the mothers' limit-setting abilities

did not show significant stability (r (54)=.20, $p > .10$). In the problem-solving stiuation, the quality of mothers' emotional support and instrumental assistance showed significant stability across children (Supportive Presence: r (58)=.42, $p < .001$; Quality of Assistance: r (58)=.50, $p < .001$).

In addition, analyses showed that mothers were more competent with second- than with firstborn children in the tool-using situation. Mothers showed higher emotional support (t (57)=3.30, $p < .003$) for second born ($\bar{x}$=8.9, s=2.7) than for firstborn ($\bar{x}$=7.7, s=2.5) and provided more effective assistance (t (57)=2.35, $p < .03$) for secondborn ($\bar{x}$=8.0, s=2.1) than for firstborn ($\bar{x}$=7.3, s=2.6). (There were no significant differences in maternal behavior in the cleanup session.) This finding is consistent with results in the literature, suggesting a trend toward greater competence with experience in childrearing.

Thus, it appears that mothers were consistent in their handling of similar developmental issues with different children. Furthermore, analyses that provided control for time of measurement gave evidence of high consistency in qualities of maternal behavior across developmental periods. Significant correlations were observed between ratings of maternal behavior with firstborn at 42 months in a teaching task and ratings of maternal behavior with secondborn at 24 months in toy cleanup and problem-solving sessions: Qualities of mothers' emotional support (Supportive Presence 42 months with 24 months: r (60)=.58, $p < .005$), instrumental assistance (Quality of Instruction 42 months with Quality of Assistance 24 months: r (60)=.51, $p < .005$), and limit-setting (Provide Structure & Limits 42 months with Maternal Limit-Setting 24 months r (60)=26, $p < .05$) were predictable across situations and across developmental periods, as well as across children. The use of measures that tap important issues in social and personality development aids us in detecting stability in behavior across a range of situations.

These data suggest that there is notable consistency in qualities of maternal behavior. Such consistency is apparent in the ways that mothers handle salient emotional issues with their different children across situations and across developmental periods. And as we have seen, there is predictability in maternal behavior across children both when age of children and time of measurement are held constant.

The demonstration of consistency in quality of mother-child relationships and of maternal behavior provides further evidence for a construct that emphasizes the coherence and predictability of individuals and relationships. However, the demonstration of consistency only lays the ground work for further investigations. Change, as well as stability, is observed in these data. Measures used to assess consistency have demonstrated adequate psychometric properties, so that changes observed can be attributed to true changes in qualities of family relations, rather than simply to measurement error. Further analyses will have to illuminate the characteristics of families in which the various children experience very different qualities of care.

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Notes

1. Rahe, D. Manual for coding teaching strategies. Unpublished manuscript, Minneapolis: University of Minnesota, 1980.

Table 1

Attachment Classifications of First and Second Children

		Attachment Classification of 1st child* (12 and 18 months)			
		A	B	C	Total
Classification of second child (12 months)	A (anxious, avoidant)	7	4	1	12
	B (secure)	10	21	8	39
	C (anxious, resistant)	1	5	6	12
	Total	18	30	15	63

* Firstborn children, for whom there were classifications at 12 and 18 months, were classified as secure for these analyses only if they were secure at both assessments. Children who were anxiously attached at either assessment were included in the appropriate classification of anxious attachment for the analyses. Note that the criterion for secure attachment at both ages of assessment is a strict one and that there is an unusually large number of anxiously-attached infants among the firstborn because of the criterion adopted.